CBT. **Conclusion:** These results strongly suggested that unrelated CBT could be safely used for adult patients with hematological malignancies.

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FACTORS ASSOCIATED WITH CLINICAL OUTCOMES OF 483 ALLOGENEIC PERIPHERAL BLOOD STEM CELL TRANSPLANTS (PBSCT) IN BRAZIL

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Uncertainty still exists with the effects of allogeneic PBSCT on the clinical outcomes of patients with hematological malignancies. Our aim was analyzed retrospectively the clinical outcomes of 483 patients who underwent an allo PBSCT in 9 Brazilian centers from May 1994 to February 2004. The analyses included patients with hematological malignancies who underwent PBSCT from HLA identical sibling donors. Median age was 34 (2–57), advanced disease was present in 58%, conditioning without irradiation was 85%; GVHD prophylaxis with MTX/CsA was 91%; $CD34^+$ median was 4.7 $\times$ 10^6/kg (0.51–71.6); the median follow-up for surviving patients was 797 days (8–3420); median day for neutrophils and platelets engraftment was 15 and 14, respectively; cumulative incidence (CI) for ^{3} 2 aGVHD was 38%; extensive cGVHD 63%; CI for transplant relate mortality (TRM) 59%; CI for relapse 37%; the estimates of OS and DFS at 9 ys are 33% and 42%, respectively. In univariate analyses the following factors were associated with better outcome: for neutrophils and platelets engraftment- $CD34^+$ cell dose $>$ 2.8 $\times$ 10^6/kg, GVHD prophylaxis other than MTX/CsA, and sex match other than female donor for male recipient; aGVHD- age $<$43, and CD34 dose $>$4.7 $\times$ 10^6/kg; cGVHD- age $<$25 ys, sex match other than female donor for male recipient, advanced disease and $CD3^+$ dose $<$170 $\times$ 10^6/kg; OS- early disease; DFS- early disease, and $CD34^+$ dose $>$4.7 $\times$ 10^6/kg; relapse- age $>$25 ys, $CD34^+$ cell dose $>$2.8 $\times$ 10^6/kg, and early disease; TRM- early disease. All the results remained significant in multivariate analyses, but for $CD34^+$ dose and platelet engraftment; age and $CD34^+$ dose in aGVHD; age and $CD3^+$ in cGVHD, and age in relapse. In our experience, sex match, $CD34^+$ dose, GVHD prophylaxis may influence the engraftment, and sex match and disease phase the cGVHD. Furthermore, advanced disease had a negative impact on OS and TRM. $CD34^+$ higher dose and early disease were associated with better DFS and lower relapse.

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FLUDARABINE-BASED CONDITIONING SECURES ENGRAFTMENT OF SECONDARY HEMATOPOIETIC STEM CELL ALLOGRAFTS (HSCT) USED TO TREAT GRAFT FAILURE

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Graft failure is associated with a high mortality rate. To date, regimens invoked for secondary transplants have resulted in inconsistent engraftment with high transplant-related mortality. We here report 15 patients, aged 4–59 years (median 24 years), who received secondary HSCT (HSCT-2) following rejection of primary unmodified (N=4) or T-cell depleted (N=11) HSCT (HSCT-1). HSCT-1 included myeloablative TBI- or alkylator-based conditioning for acute leukemias (N=5), MDS (N=6), CML (N=3), and Fanconi anemia (N=1). Cytoreduction regimens used for HSCT-2 included: Fludarabine (Flu) alone (N=2) or in combination with Cyclophosphamide (CTX) (N=8) or Thiotepa (Thio) (N=4), or Thio combined with CTX (N=1). ATG (N=11) or Alemtuzumab (N=3) was added pretransplant to prevent rejection. For HSCT-2, donors included: HLA-matched (N=3) or non-identical (N=7) relatives and matched (N=1) or non-identical (N=4) unrelated donors. The primary graft donor was used in seven of fifteen cases. The grafts administered were unmodified PBSCT (N=6) or BMT (N=2) or T-cell depleted (TCD) PBSCT (N=7). Of 15 patients, 14 achieved engraftment with complete chimerism. Mean time to engraftment (ANC $>$1000 for 3 days) was 15.4 days. Seven patients died of infection (N=5), graft failure (N=1), or encephalopathy (N=1) within 100 days post-transplant, and four patients succumbed to GVHD (N=1), relapse (N=1), pneumonia (N=1), or EBV lymphoma (N=1) 6–15 months post-transplant. Four patients are alive and disease-free with a median follow-up of 51 months, including 3/8 conditioned with Flu/CTX. In this limited series, younger patients (4/7 $<$ 20 years vs. 0/8 $>$ 20 years), transplants from secondary donors (3/8 with secondary donor vs. 1/7 with primary donor), and TCD HSCT-2 (3/7 TCD vs. 1/8 unmodified) had a better outcome. In summary, secondary HSCT following a Flu/ATG-based non-myeloablative regimen have achieved consistent engraftment with hematopoietic reconstitution in patients with a primary graft failure, but are limited by infections complicating delayed immune reconstitution.

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MYELOABLATIVE VS NON-MYELOABLATIVE CONDITIONING WITH ALLOGENEIC STEM CELL TRANSPLANTATION FOR HIGH RISK NON-HODGKIN'S LYMPHOMA: SIMILAR OUTCOMES DESPITE DIFFERENCES IN DISEASE RISK

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For patients (pts) with Non-Hodgkin's Lymphoma (NHL), the optimal timing and conditioning regimen intensity for transplant has not been defined. Nonmyeloablative stem cell transplants (NMT) have been reserved for those patients at high risk for treatment related morbidity and mortality (TRM) from conventional High Dose allogeneic SCT (HDT) and have been increasingly employed as salvage therapy for relapse after autotransplantation. To assess the effectiveness of this approach, we performed a retrospective analysis of 35 pts who have undergone either HDT (n=20) with a TBI-based regimen or NMT (n=15) with a fludarabine-based regimen followed by allogeneic SCT for high risk NHL. Stem cell source varied by conditioning; 13/15 of HDT pts received bone marrow (11 sib, 2 MUD), while all NMT pts received peripheral blood (11 sib, 9 MUD). NMT pts constituted a higher risk cohort based on extent of prior therapy (including 80% s/p autotransplant), chemoresistance, and age. Distribution of histology for the entire group was skewed toward aggressive histology, but equally distributed between HDT and NMT. For pts surviving $>$90 days, median follow up for HDT pts is 50 months (4–92 m), vs 12 months (4–45 m) for NMT pts. A comparison of overall survival (53 vs 45%), event-free survival (53 vs 48%), and progression-free survival (88 vs 64%) at 1 year demonstrated no significant differences between HDT and NMT cohorts despite the higher risk nature of the NMT group. The 100-day TRM for HDT vs NMT pts was similar (33 vs 30%, p=ns). The incidence of grade II-IV acute GvHD was not significantly different between HDT (3/13 evaluable, 23%) and NMT (7/20, 35%). Among evaluable pts, chronic GvHD was lower in the HDT group vs NMT (13 vs 50%). Among causes of death, disease-related deaths were lower in the HDT group (1/7, 14%) compared with NMT pts (5/11, 45%). This retrospective analysis demonstrates 1) NMT induces durable remissions in a significant number of poor risk pts; 2) outcomes after NMT may be comparable to HDT; 3) relapse rates